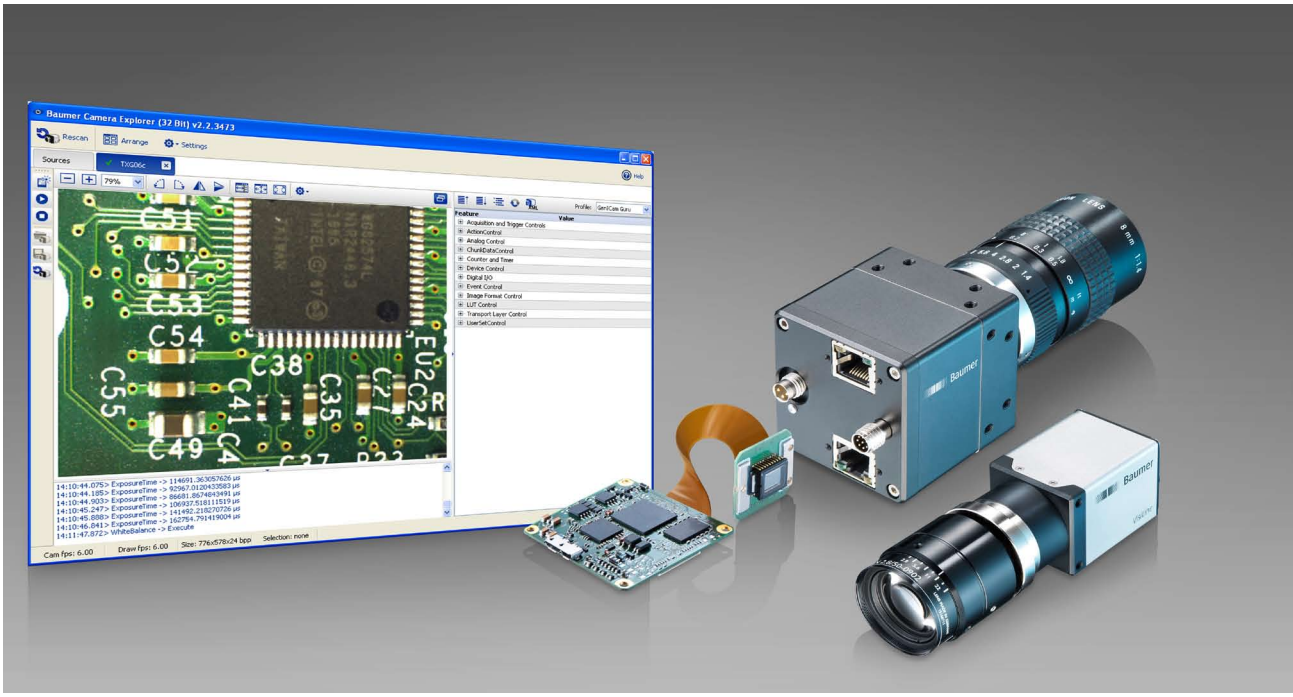
Baumer



Baumer Camera Explorer

User's Guide for Baumer GAPI Test Tool

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1. Introduction

The *Baumer GAPI Camera Explorer* is the perfect evaluation tool for all Baumer cameras with GigE, Dual-GigE and USB interfaces and is part of the generic application programming interface from Baumer,

It allows you to investigate the extensive functionality of our innovative cameras.

The Tool provides you with an easy to use graphical user interface to test your specific camera features and allows different camera models to be opened simultaneously.

The *Baumer GAPI Camera Explorer* supports cameras with one GigE port (Single-GigE), with two GigE ports (Dual-GigE) and cameras with a USB port. The use of cameras with dual GigE requires the prior setting of Link Aggregation Group Configuration (LAG).

2. General System Requirements

		Single-camera system Recommended	Multi-camera system Recommended
CPU		Intel(R) Core(TM) i5-2520M CPU @ 2.50GHz, Cores: 4	Intel(R) Core(TM) i7-3770 CPU @ 3.40GHz, Cores: 8
RAM		4 GB	8 GB
		Operating system (OS)	
GigE Vision	**Windows**	Microsoft Windows XP 32/64 bit systems Microsoft Windows 7 32/64 bit systems Microsoft Windows 8 32/64 bit systems	
	Linux	Debian 7 Ubuntu 12.04 Ubuntu 13.04 Ubuntu 14.04 Fedora 20 OpenSUSE 13.1	
USB 3.0 Vision	**Windows**	Microsoft Windows 7 32/64 bit systems Microsoft Windows 8 32/64 bit systems	
	Linux	not supported	
Graphics		recommended resolution at least 1280 x 1024, color depth 32 bit	

3. User Interface

3.1 Program Start

Open the Baumer Camera Explorer via "Start" → "All Programs" → "Baumer" → "Baumer GAPI SDK" → "Baumer GAPI Camera Explorer xx[1)]".

Notice
There are several command-line parameters. To get an overview, start with -h. (bexplorer.exe -h)

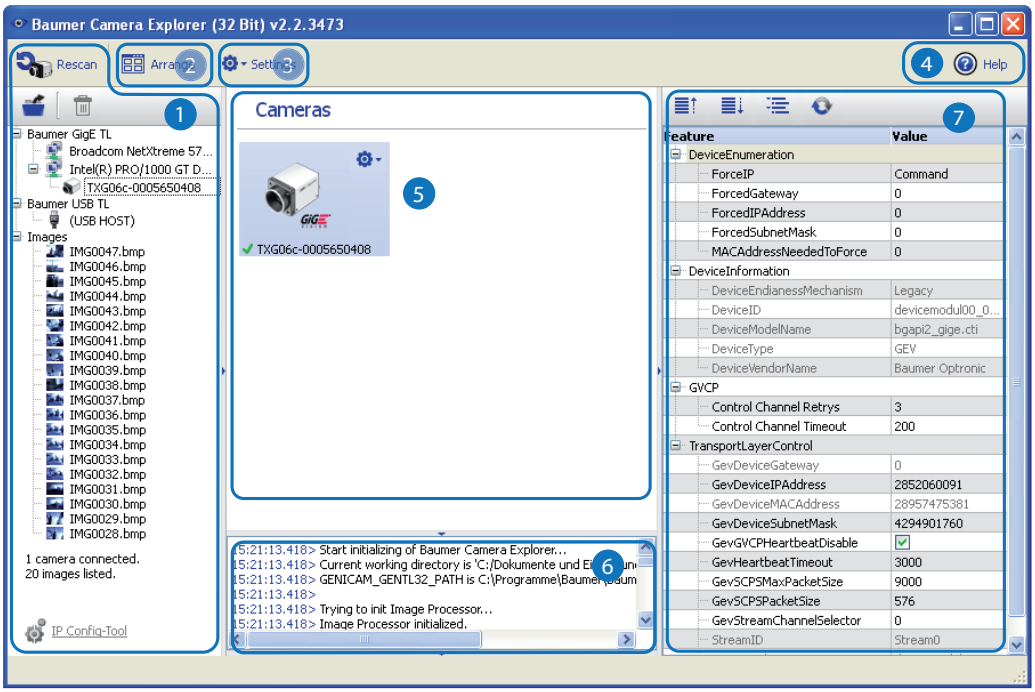
3.2 Start Screen

The Camera Explorer can have the following start conditions:

- if no camera is connected, the last snapshot is displayed, otherwise the last image is displayed
- if only one camera is connected, a live image is displayed immediately
- if several cameras were connected during the last session, they will be displayed with their availability marked / If the option *Connect automatically* (- on camera) is activated, the respective camera(s) view will open automatically

The number and position of the windows are restored as at the last session.

On the Start Screen, you will find a user interface that is separated into several areas, which are described in greater detail within the following paragraphs.



◄ **Figure 1**
Start Screen with marked areas

1 **Source tree**
see chapter 3.2.1

2 **Arrange Windows**
see chapter 3.2.2

3 **Program Settings** see chapter 3.2.3

4 **Help**
see chapter 3.2.4

5 **Cameras / Images**
see chapter 3.2.5

6 **System Status**
see chapter 3.2.6

7 **Main Class Features**
see chapter 3.2.7

1) xx stands for 32 or 64, i.e. 32 / 64 bit as defined by the OS used

3.2.1 Source tree

In this area, all existing sources, cameras and images are displayed in a tree list. The cameras are displayed under the name of the respective interface (hardware) and producer.

You can open the selected image or camera by double clicking.

This area can be expanded and collapsed.

After selecting a camera from the list by double clicking, a new camera tab with the *Camera View* (see chapter 3.5) will be opened.

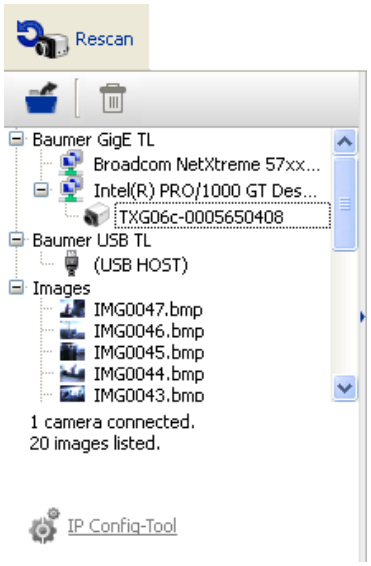


Figure 2 ►
Source tabs with located TXG Camera and one snapshot.

This area shows the following icons with functions as described below:

Icon	Description
	Start search for available cameras. The cameras recognized are listed under the respective interface.
	You can use this function to load images from the PC.
	Remove the selected image. Cameras cannot be deleted. **Notice** Selected images are removed only from the GUI and remain in their storage location.
	You can use this function to set the width of the area. At a certain point, the area closes completely.
	Here, several options for the GigE interface in terms of persistent IP Options, Force IP Options and more, can be adjusted. **Notice** The IP Config-Tool is a separate program and not part of the Baumer GAPI Camera Explorer. It is available only on Microsoft® Windows®.

Figure 3 ►
Source tab icons and their functions

3.2.2 Arrange Windows

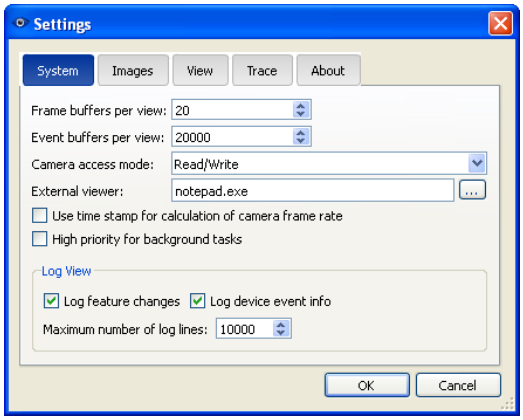
Icon	Description
	Open all cameras and tabs (images). **Notice** This button is only available if the *Connect automatically* function is activated for at least one camera, or if tabs are opened. Settings for *Arrange Windows:* *Program settings → View / Arrange Windows*

3.2.3 Program Settings

Several program options can be adjusted here.

Icon	Description
	This icon or [F10] will open the dialog window for program configurations.

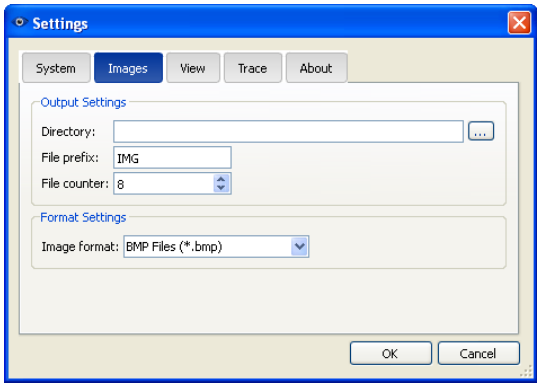
System



Function	Description
Frame buffers per view	Set the number of frame buffers (2-500). **Notice** Extended buffering will prevent image loss but requires a larger memory capacity. Only set the required buffer number (1 buffer = 1 image). The system does not check whether there is sufficient memory available.
Event buffers per view	Set the number of event buffers.
Camera access mode	Define the access authorisation rights. Read/Write: full access Read Only: access to read the features only Exclusive: camera locked for other applications
External Viewer	Set a viewer for the camera's XML file or the trace file.
Use timestamp for calculation of camera frame rate	Uses the time stamps of images to calculate the frame rate, this is more accurate than timing via the PC. **Notice** Whether this feature is supported depends on the connected camera.
High priority for background tasks	Give the background task more time to process frame buffers. This option can make the GUI behave less smoothly.
Log view	
Log feature changes	Write a log message for each feature modification.
Log device event info	When you activate this feature, all events activated by the respective camera as part of the *Event Control* feature are logged. **Notice** The Event Control feature is available for the GenICam Expert and *GenICam Guru* profiles.

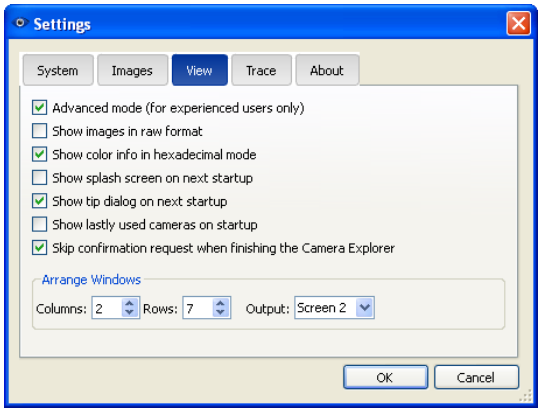
Maximum number of log lines	Here, you can set the maximum number of log lines. If the maximum is reached, the older log lines will be deleted. **Notice** 0 = unlimited log lines

Images



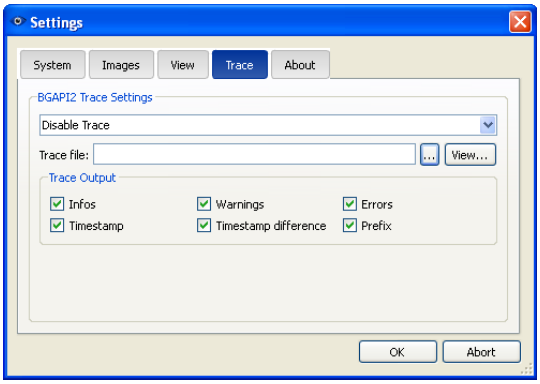
Function	Description
Output settings	
Directory	Choose the destination path for the snapshots and images captured with the *Image Recorder*.
File prefix	Set the prefix for the file name.
File counter	File name start number for the first image.
Format settings	
Image format	Select the image format for the snapshots. With the **.tif* image format, you have the extra option to adjust the bits per channel to 16 bit if the output format of the camera is > 8 bit. **Notice** The function is not supported by all pixel formats.

View



Function	Description
Advanced mode (for experienced users only)	Enable additional functions for camera exploration.
Show images in raw format	Display the image in raw format in *Camera View* [F6]. **Notice** In raw format, the byte/line is displayed at 8 bits per channel.
Show color info in hexadecimal mode	Show the color information in the *Status Bar* in hexadecimal format.
Show splash screen on next startup	Select when to start the software and whether the splash screen is enabled. If you turn off the view of the splash screen, you will see the initialisation in the System Status window instead.
Show tip dialog on next startup	If you activate this, the *Tip of the day...* is shown on the next startup [Alt]+[F1].
Show lastly used cameras on startup	The most recently used cameras will be shown on startup even if not accessible.
Skip confirmation request when finishing the Camera Explorer	Disable the query when closing the Camera Explorer.
Arrange Windows	
Columns	Select the number of columns for arranging the image views.
Rows	Select the number of rows for arranging the image views. **Notice** If the windows are too large, they will overlap.
Output	Select the destination screen for arranging the image views.

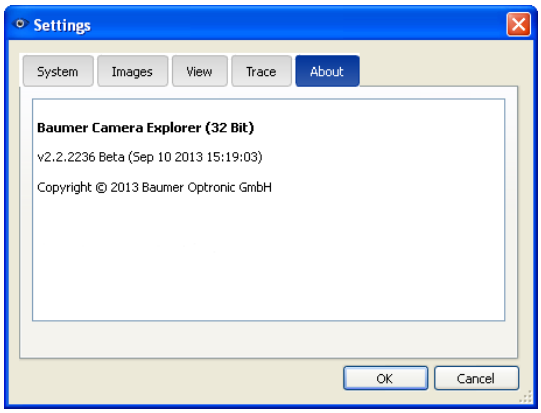
Trace



The Trace function allows you to monitor program execution. The following options are available.

Function	Description
BGAPI2 Trace Settings	
Disable Trace	No trace storing.
Trace to Debugger	Trace will be transferred to external debugger.
Trace to File	Trace is stored in the specified file.
Trace file	Select the path of the trace file.
Trace Output	
Infos	Logging of general information. **Notice** This selection creates a high volume of data. Activate only when necessary.
Warnings	Logging of warnings.
Errors	Logging of errors.
Timestamp	Logs the timestamp of every event.
Timestamp difference	Logs the interval from the last traced event to the current one.
Prefix	Shows the source (.dll) of the log entry.

About



This tab shows the program version and other information.

3.2.4 Help

You can open the help file within the program.

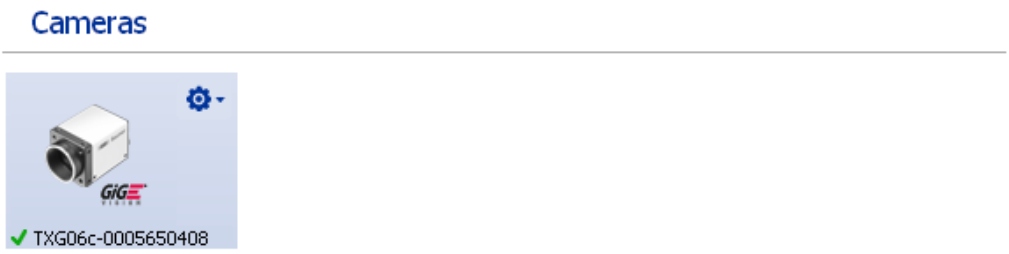
Icon	Description
	Click this button or [F1] to open the help file. Use [Alt]+[F1] to open the *Tip of the day...* .

3.2.5 Camera / Image area

The recognized cameras or open images are displayed here.

Cameras

In this area, the connected cameras are displayed with their model name, a status icon and the serial number. Start the *Camera View* by double clicking on the icon.



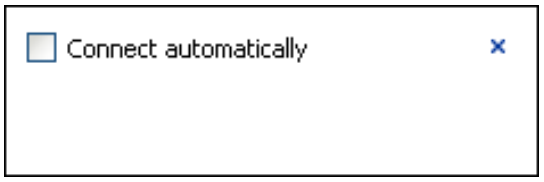
◀ **Figure 4**
Camera area with an TXG camera with full access

Meanings of the status icons shown as part of the camera icon.

Icon	Description
	Full access to the camera is available.
	Camera accessibility is limited. Features are shown but cannot be amended.
	Camera is not accessible.

To the right of the available cameras, there is the option button.

Icon	Description
	Click this button to open the options for the respective camera.



You can activate the *Connect automatically* option for every accessible camera. If activated, the respective *Camera View(s)* will be opened automatically when the Camera Explorer is next started.

If only one camera is connected, a live image is displayed immediately, regardless of this option.

Images

The captured snapshots and the loaded images are displayed here. Their storage location will be shown as a tooltip. You can open an image in the *Image View* by double clicking it.

Remove the selected image with [Del].

Notice
Selected images are removed only from the GUI and remain in their storage location.

Notice
You can change the storage location for snapshots in the Program Settings. *Program Settings → Images.*

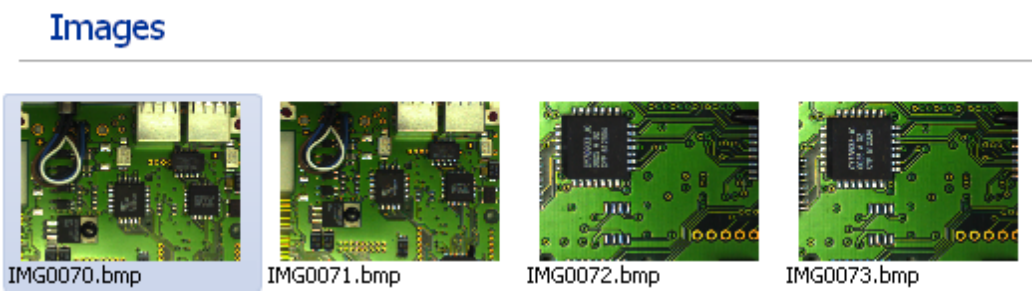


Figure 5 ►
Image area with images

3.2.6 System Status Window / Log View

In this area, the program activities are shown in chronological order.

For example, you can access information about:

- starting procedure
- recognized cameras
- occurred errors
- used producers

The height of the area is adjustable, and it can be expanded and collapsed. This is marked with an identifier.

Notice
Settings for the *Log View* can be adjusted in *Program Settings → System*.

Right-click in this area to display different options.

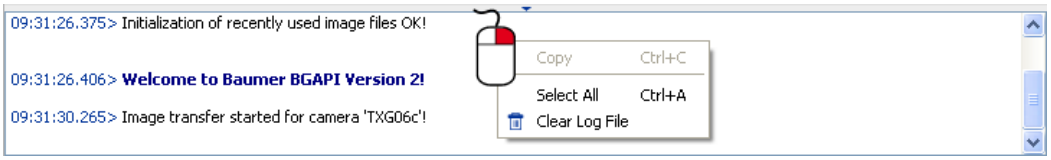

09:31:26.375> Initialization of recently used image files OK!
09:31:26.406> Welcome to Baumer BGAPI Version 2!
09:31:30.265> Image transfer started for camera 'TXG06c'!
Copy Ctrl+C
Select All Ctrl+A
Clear Log File

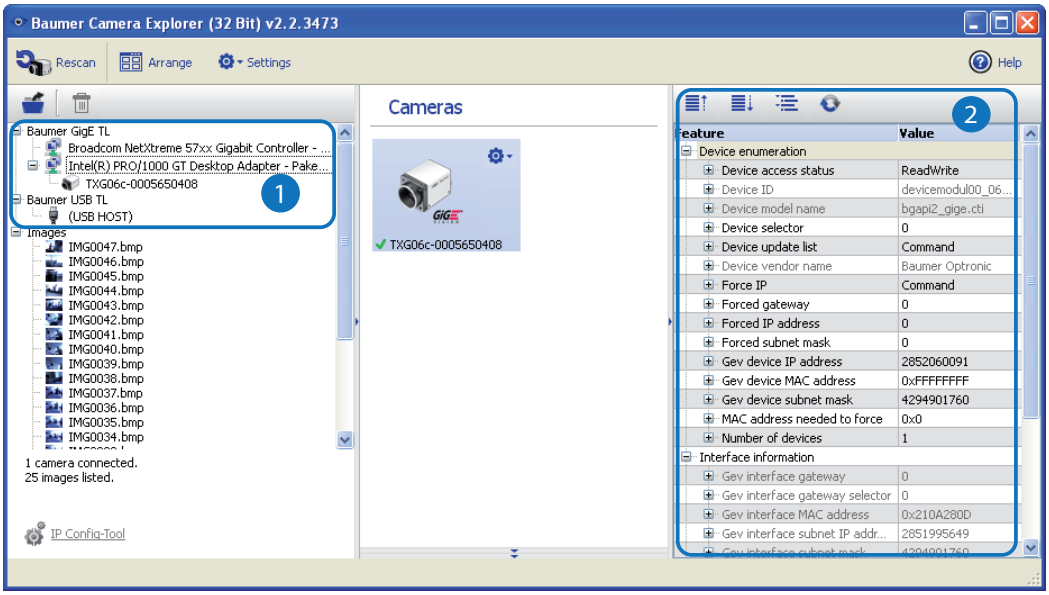
Figure 6 ►
System Status window

3.2.7 Main Class Features

Here, you have the option to adjust various features of the main classes (*System, Interface, Device*).

Notice
Function only available in *Advanced mode*. Activation: *Program settings → View*

To do this, click on *Source Tree* 1 on the desired object. The available features are now displayed in the *Main Class Features Tree* 2.



Producer (e.g. Baumer GigE TL) = Main Class *System*

Interface (e.g. Intel(R) PRO/1000 GT Desktop Adapter) = Main Class *Interface*

Device (e.g. TXG06c-0005650408) = Main Class *Device*

The features are displayed in the view property grid within their respective category.

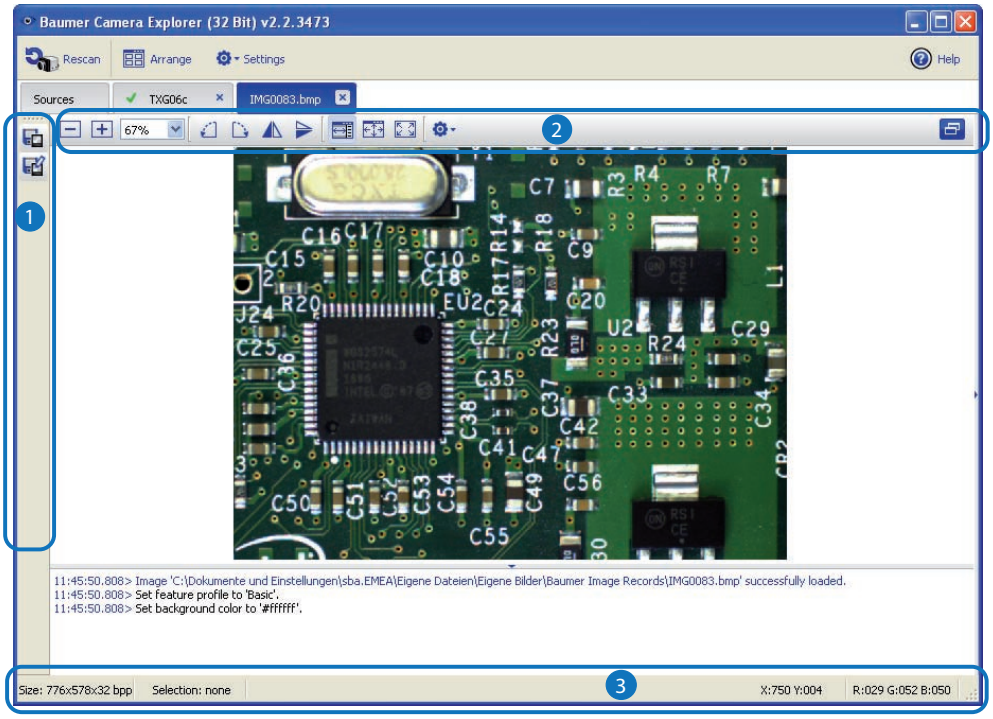
Notice
The features for the *Stream* main class are visible in the Feature Control Area with the profile set to *BGAPI Stream*.

This area shows the following icons with functions as described below:

Icon	Description
	Expand all feature control categories.
	Collapse all feature control categories.
	Show or hide feature properties.
	Refresh all feature values. [F5]
	You can use this function to set the width of the area. At a certain point, the area closes completely.

3.3 Image View

Each image will open in a separate tab. The tabs are separated into different areas. The content of the areas is described below.



1. **Tool Bar**
   see chapter 3.3.1
2. **View Settings**
   see chapter 3.3.2
3. **Status Bar**
   see chapter 3.3.3

3.3.1 Tool Bar

Here, you have various options for storing the displayed image. The tool bar can be placed on all sides of the Camera Explorer or within the area.

Icon	Description
	Save current image to file.
	Save current image to new file.

Formats

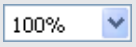
Format	Description
*.bmp	normal bitmap
*.jpg	normal jpg
*.png	normal portable network graphic
*.tif	8 bit / 16 bit images
*.brw	special raw-format / only for Camera Explorer

3.3.2 View Settings

View Settings provides several options to manipulate the displayed image.

Double click on the image to open it in fullscreen mode. Zoom in using [Ctrl] + [mouse wheel].

Primary view settings

Icon	Description
	Zoom in / out.
	Manual enlargement input [Ctrl] + [mouse wheel]. **Notice** You can scroll in a zoomed image with [Alt] + [mouse], [shift] + [mouse].
	Rotate image by 90°.
	Vertical / horizontal mirroring of image view.
	Image view fit to window. [F2]
	Toggle maximized mode [F3]
	Activates fullscreen mode. **Notice** In fullscreen mode, you can zoom into/out of the image with [Ctrl] + [mouse wheel].
	Open the tab as a separate window.

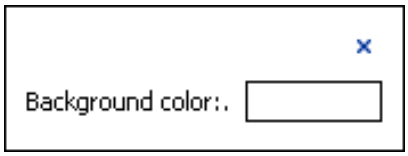
◀ **Figure 7**
Primary View settings icons

Secondary view settings

Icon	Description
	Open the secondary view setting layer.

This has the following option:

- change background color



3.3.3 Status Bar

The status bar at the bottom of the Image View tab gives some information about the respective image.

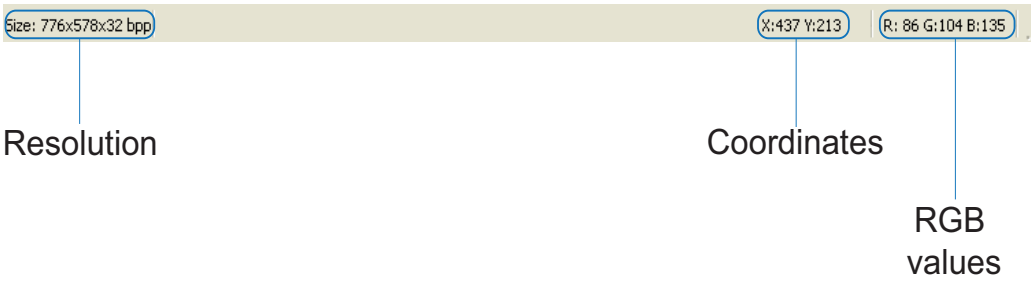


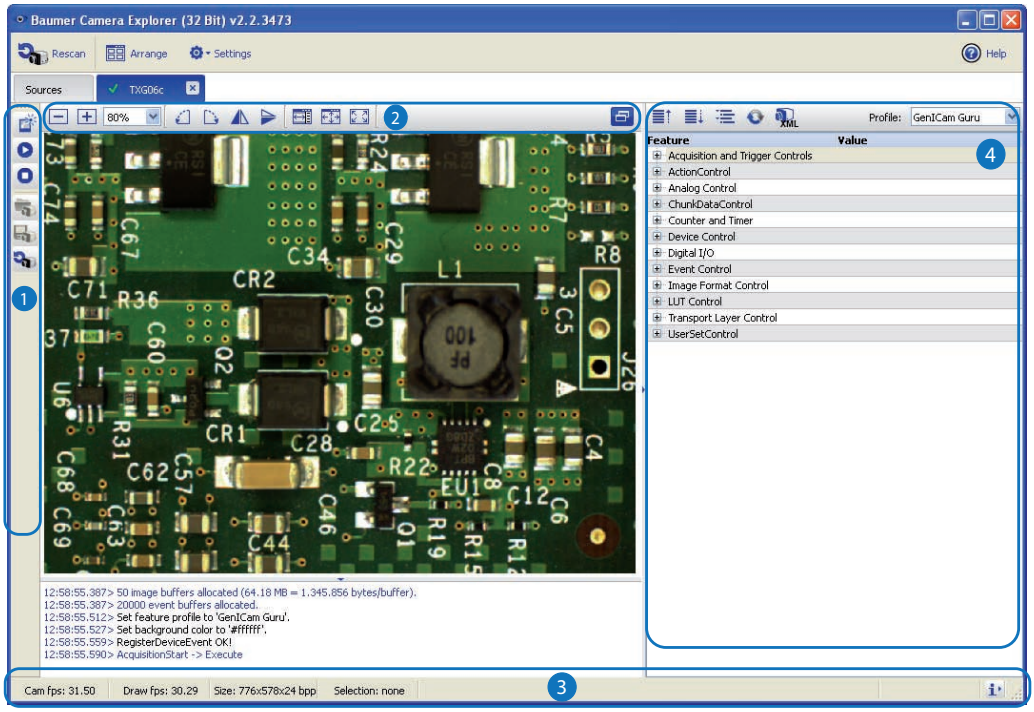
Figure 8 ►
Status Bar image view

Information	Description
Resolution	Current resolution of the image.
Coordinates	Position of mouse cursor within the image.
RGB values	The **R**ed **G**reen **B**lue values for the current mouse position. **Notice** The display format can be changed. *Program settings → View → Show color info in hexa-decimal mode*

3.4 Camera View

Each opened camera will be shown in a separate tab. The tabs are separated into different areas. The content of the areas is described below.

With [F6] you can show the image in raw mode.



1 **Tool Bar**
see chapter 3.5.1

2 **View Settings**
see chapter 3.5.2

3 **Status Bar**
see chapter 3.5.3

4 **Feature control area**
see chapter 4

3.4.1 Tool Bar

In the Tool Bar there are different icons with functions for image acquisition, loading and storing feature setting files and resetting the camera.

The tool bar can be placed on all sides of the Camera Explorer or within the area.

Icon	Description
	Take a snapshot of the current image [F9]. **Notice** Settings for snapshots: *Program settings → Images / Output Settings*
	Start image acquisition [F12].
	Stop image acquisition [F11].
	You can use this function to load a feature setting file from the PC. **Notice** Whether this feature is supported depends on the connected camera.
	Here, you can save a feature setting file to the PC. The feature setting file contains all adjusted values. **Notice** Whether this feature is supported depends on the connected camera.
	With this function, you can reset all camera settings to the default *UserSet*. **Notice** The camera will be reset to the UserSet, which is set by default in *UsersetControl → UserSetDefaultSelector*.

Figure 9 ►
Tool Bar icons and their functions

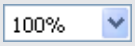
3.4.2 View Settings

View Settings provides several functions to manipulate the displayed image.

View Settings only changes the visualization of the Camera Explorer. Nothing is set on the connected camera.

Double click on the image to open it in fullscreen mode.

Primary view settings

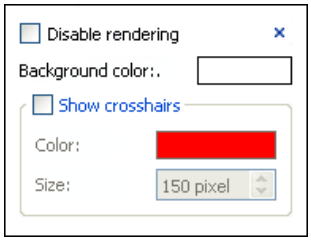
Icon	Description
	Zoom in / out.
	Manual enlargement input [Ctrl] + [mouse wheel]. **Notice** You can scroll in a zoomed image with [Alt] + [mouse], [shift] + [mouse].
	Rotate image by 90°.
	Vertical / horizontal mirroring of image view.
	Image view fit to window. [F2]
	Toggle maximized mode [F3]
	Activates fullscreen mode. **Notice** In fullscreen mode, you can zoom into/out of the image with [Ctrl] + [mouse wheel].
	Open the tab as a separate window.

◄ **Figure 10**
Primary View settings icons

Secondary view settings

Icon	Description
	Open the secondary view setting layer.

This layer has the following options:
- disable rendering of the image
- change background color
- show crosshair (position can be adjusted)
- set size and color of the crosshair



3.4.3 Status Bar

The status bar at the bottom of the camera tab gives additional information about the selected camera.

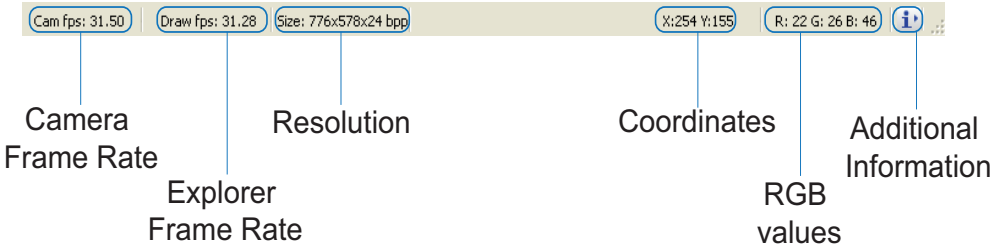


Figure 11 ►
Status Bar / Camera View

Information	Description
Camera Frame Rate	Current frame rate of the camera (frames per second [fps])
Explorer Frame Rate	Current frame rate of the Explorer (frames per second [fps])
Resolution	Current resolution of the image.
Coordinates	Position of mouse cursor within the image.
RGB values	The **R**ed **G**reen **B**lue values for the current mouse position. **Notice** *The display format can be changed.* *Program settings → View → Show color info in hexa-decimal mode*
Additional Information	Open a layer with detailed information.

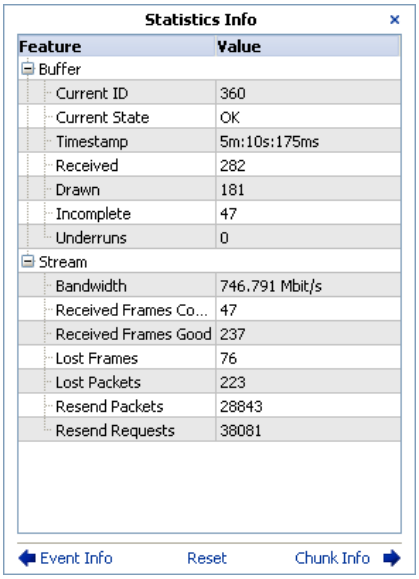
Additional Information

When you click on the in the status bar, a new window opens. In this window, you can access additional information about the image and data transfer.

Use the arrows ( ) to switch between pages.

Icon	Description
Reset	You can use this function to reset the values on the respective layer.

Statistics



Information	Description
Buffer	
Current ID	ID of the current image
Current State	Current State
Timestamp	Timestamp of the current image
Received	Number of received images
Drawn	Number of drawn images
Incomplete	Number of resend packets
Underruns	Number of images discarded due to unavailable buffer. **Notice** Set the number of buffers: *Program settings → System / Frame Buffer per View*
Stream	
Bandwidth	Bandwidth of the connection
Received Frames Corrupted	Number of received corrupted frames
Lost Frames	Number of lost frames
Lost Packets	Number of lost packets
Resend Packets	Number of resend packets
Resend Requests	Number of resend requests

Chunk Info

Here you can access information about the chunk data. The content of the chunk depends on the connected camera.

Notice

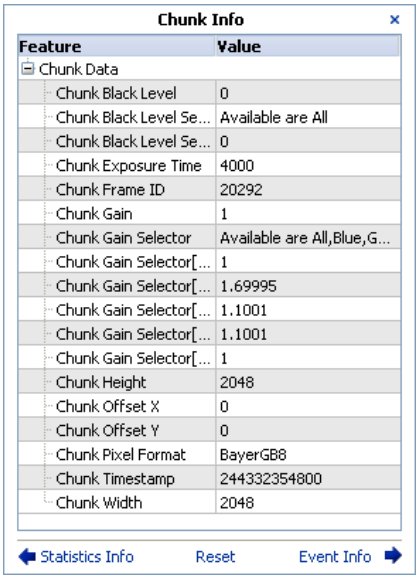
Activating Chunk Mode

1. GigE cameras must first be stopped:
or *Acquisition and Trigger Controls → Acquisition Stop* or [F 11]

2. Enable chunk mode:
Profile: GenICam Guru / ChunkDataControl → Chunk Mode Active

3. Re-start GigE camera:
or *Acquisition and Trigger Controls → Acquisition Start* or [F 12]

Activating the *Auto Exposure* function also activates the *Chunk Mode*function. If *Auto Exposure* is then deactivated, *Chunk Mode* remains active.



Example content

Information	Description
Chunk Data	
Chunk Gain	Gain used to capture the image
Chunk Gain Selector	Type of gain
Chunk Gain Selector [Blue]	blue
Chunk Gain Selector [GreenBlue]	green / blue
Chunk Gain Selector [GreenRed]	green / red
Chunk Gain Selector [Red]	red
Chunk Timestamp	Timestamp of the current image
Chunk Black Level	Black Level is used to capture the image
Chunk Black Level Selector	Select which black level to retrieve data from
Chunk Exposure Time	Exposure time of the current image
Chunk Frame ID	Unique identifier of the feature
Chunk Offset X	Returns the X offset of the image
Chunk Offset Y	Returns the Y offset of the image
Chunk Pixel Format	Returns the pixel format of the image
Chunk Width	Returns the width of the image

Event Info

Here you can access information about the chunk data.

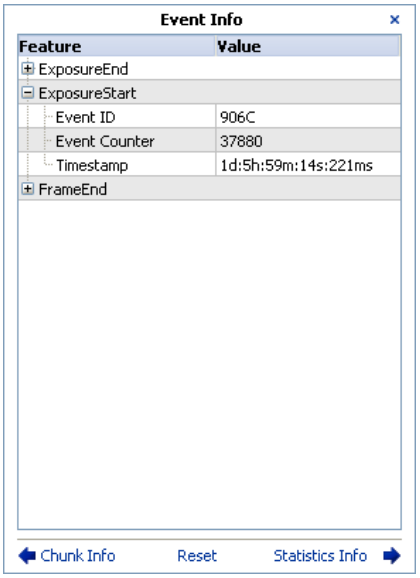
Notice

Activating Event Info

1. Activate:
Program Settings → System / Show device event info

1. Event selection:
Profile GenICam Guru / Event Control → Event Selector / e.g. ExposureStart, FrameEnd, ExposureEnd

2. Activation:
Profile GenICam Guru / Event Control → Event Notification / On

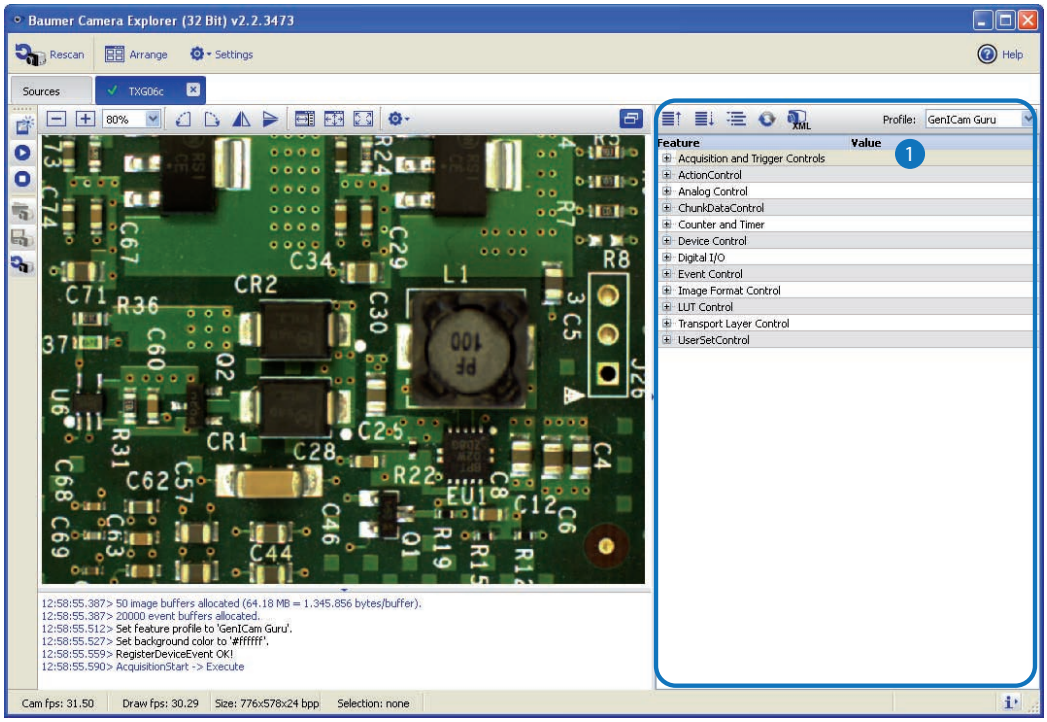


Example content

Information	Description
ExposureStart	
Event ID	ID of the event
Event Counter	Number of events
Timestamp	Timestamp of the event
Event Exposure Start	Number of exposure starts
Event Exposure Start Timestamp	Number of timestamp

4. Feature Control Area

Feature Controls provides several functions for parametrization of the camera. These settings will be stored in the camera.



1 Feature Control Area

4.1 Feature View Icons

The icons at the top of the feature window have the following functions:

Icon	Function
	Expand all feature control categories.
	Collapse all feature control categories.
	Show or hide feature properties.
	Refresh all feature values. [F5] [Ctrl] + [click on icon] to toggle between feature name and display name.
	View the camera configuration file. **Notice** Function only available in *Advanced mode*. Activation: *Program settings → View / Advanced mode* You can set your own external viewer to show the camera configuration files. *Program settings → System / External Viewer*
	Select a user defined set of features. This selection can be saved for every camera and is loaded automatically. **Notice** This function is only available in the *GenICam User* profile.
	You can use this function to set the width of the area. At a certain point, the area closes completely.

4.2 Profiles

You can choose between five different profiles. You can use the combobox to choose your desired profile or [F4] to switch between profiles.

The differences between the profiles are the number of categories, the view and the number of features.

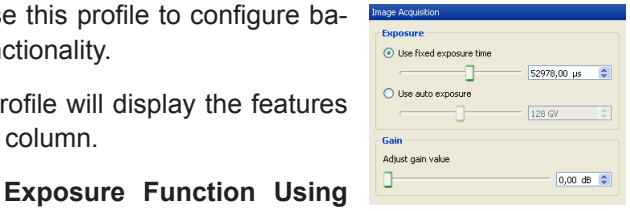
<table>
<tr><th>Profile</th><th>Description</th><th>Screenshot</th></tr>
<tr><td>Basic</td><td>Choose this profile to configure basic functionality.

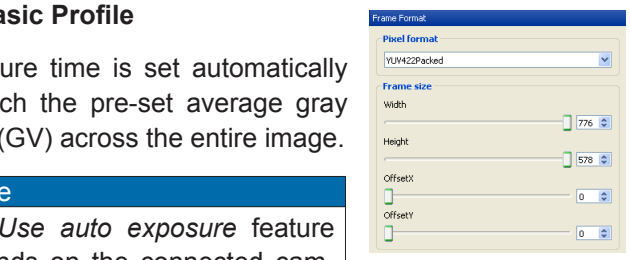
This profile will display the features in one column.

Auto Exposure Function Using the Basic Profile

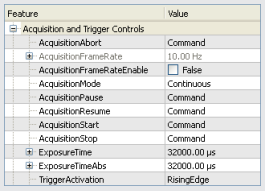
Exposure time is set automatically to reach the pre-set average gray value (GV) across the entire image.

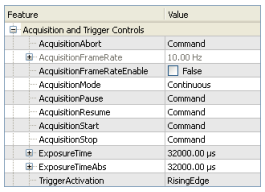
Notice
The Use auto exposure feature depends on the connected camera.

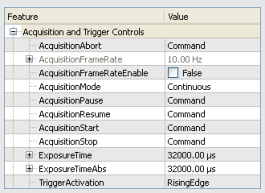
Activating the Auto Exposure function also activates the Chunk Modefunction. If Auto Exposure is then deactivated, Chunk Mode remains active.</td><td> 



You can find a description of the Image Recorder function in chapter 4.6.1.</td></tr>
<tr><td>GenICam Beginner</td><td>This profile provides the most frequently used features.

The features in this profile are displayed in the view property grid within their respective category.</td><td> 
</td></tr>
<tr><td>GenICam Expert</td><td>This profile offers more functionality than the Beginner profile.

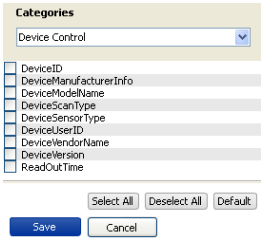
The features in this profile are displayed in the view property grid within their respective category.</td><td> 
</td></tr>
<tr><td>GenICam Guru</td><td>This profile provides maximum functionality. It will display all possible settings.

The features in this profile are displayed in the view property grid within their respective category.</td><td> 
</td></tr>
</table>

Within this profile you have the option to define your own feature selection.

Click on the pen icon and choose a category to select the features.

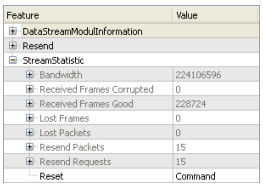
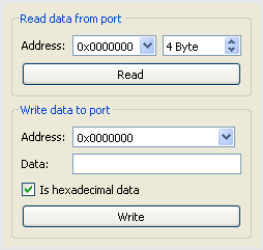
This selection can be saved for every camera and is loaded automatically when you connect the camera.



Main Class Profiles

Notice

These profiles are only available in Advanced Mode:
Activation: *Program Settings → View / Advanced mode (for experienced users only).*

Profile	Description	Screenshot
BGAPI Stream	This profile provides you with the features of the *main class BGAPI Stream*. The features in this profile are displayed in the view property grid within their respective category.	
Port Interface	Enables read and write of camera addresses. **Notice** Inappropriate changes may impair operation or even render the camera unusable. For this reason, a password must be assigned.	

4.3 Feature Interaction

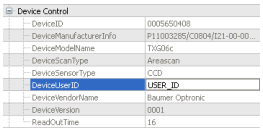
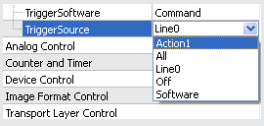
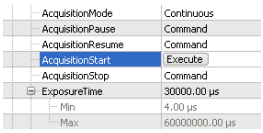
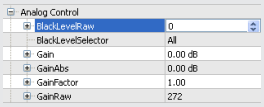
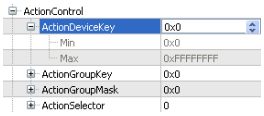
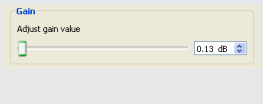
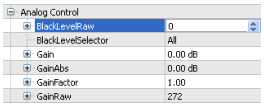
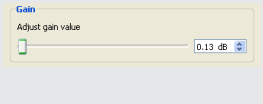
The features of the profiles *GenICam Beginner*, *GenICam Expert*, *GenICam Guru* and *GenICam User defined* follow the GenICam standard and are shown in the property grid. In the property grid, the current values of the features are permanently displayed in columns.

Hover your mouse cursor over the feature value to display brief information in the form of a tool tip.

To make changes, click on the value and, depending on the type of feature, a graphical element opens. Changes can also be made via the keyboard.

Changes can be made via this graphical element.

Some features correlate with each other and will be immediately updated.

Feature Types	Description	Screenshot
Strings	In the Strings feature type, you can enter a value into a text box. Changes are effective immediately without confirmation.	
Enumeration	In the Enumeration feature type, you can choose a value from a selection in the form of a drop-down list.	
Command	Execution of selected features only. To execute the feature click on the respective button.	
Integer	In the Integer feature type, you can enter a value into a text box for some features.	
	Identifier text boxes require hexadecimal value entry.	
	In some features with the Float feature type, you can adjust the value using a variable slider.	
Float	In the Float feature type, you can enter a value into a text box for some features.	
	In some features with the Float feature type, you can adjust the value using a variable slider.	
Boolean	In features in the Boolean feature type, you can choose in a check box whether the feature is enabled or not.	

4.4 Categories

In the *GenICam Beginner*, *GenICam Expert* and *GenICam Guru* profiles, the features are divided into categories. Some examples of features are shown in the table below.

Notice

The features of the respective category are dependent on the connected camera.

Category	Examples of features in the category
DeviceControl	DeviceVendorName, DeviceModelName, DeviceID, ...
ImageFormatControl	Width, Height, OffsetX, OffsetY, PixelFormat, ...
AcquisitionControl	AcquisitionStart, AcquisitionStop, ExposureTime, ...
DigitalIOControl	LineSelector, LineMode, LineSource, ...
CounterAndTimerControl	FrameCounter, TimerDelay, CounterReset, ...
EventControl	EventSelector, EventNotification, EventSoftwareData, ...
AnalogControl	Gain, Gamma, WhiteBalance, ...
LUTControl	DefectPixelCorrection, DefectPixelListIndex, ...
TransportLayerControl	GevInterfaceSelector, GevNumberOfInterfaces, ...
UserSetControl	UserSetSelector, UserSetLoad, UserSetSave, ...
ChunkDataControl	ChunkModeActive, ChunkSelector, ChunkFrameID, ...
ActionControl	ActionDeviceKey, ActionGroupMask, ActionGroupKey, ...
HDRControl	HDREnable, HDRIndex, ...

4.5 Features

When you select a category in this area, an associated feature tree is opened.

Depending on the selected profile, the categories and their features differ in number.

Notice
All standard features are described in "GenICam Standard Features Naming Convention". The standard is downloadable for free at: www.emva.org.

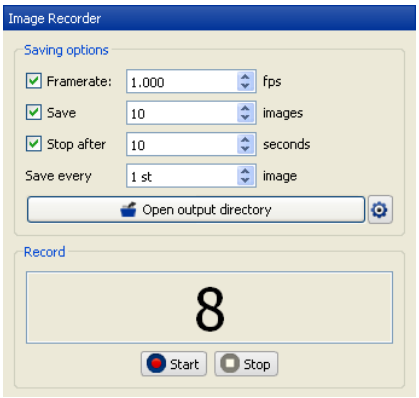
4.6 Special Functions

Notice

These special functions are only available in the *Basic* profile.

4.6.1 Image Recorder

Record images with various conditions.



Saving Options

Icon	Function
Framerate:	Set camera frame rate for saving. **Notice** If this function is grayed out, the camera is in Trigger Mode. *Acquisition and Trigger Controls → TriggerMode*
Save	Limit the number of images to save.
Stop after	Limit the number of seconds to save per image.
Save every	Skip saving of images by defining an image save interval.
Open output directory	Open current output directory with last recorded images.
	Change output directory and image format settings.
Record 8	Number of captured frames.
Start	Start frame capture to new sub directory.
Stop	Stop frame capturing.

5. Support

In the event of any questions, or for troubleshooting, please contact our support team.

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